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P U B L I C A T I O N S
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THE PARTIAL ECLIPSE OF THE MOON OF
MAY 11, 1892.

BY A. STANLEY WILLIAMS, F. R. A. S.

A cloudless sky enabled this eclipse to be observed with great satisfaction, though owing to the low altitude of the moon the seeing was confused and unsteady in the telescope. But regarded from the point of view of the naked-eye observer this low altitude was a decided advantage, as the progress of the phenomenon could be watched without discomfort. The eclipse on the whole was rather a dark one, though with the 6½-inch CALVER reflector used, and also in the 1½-inch finder, the principal features were readily traceable. About the time of greatest eclipse the part of the moon most deeply immersed in the shadow was of a rosy tint, not very deep; and from thence it faded away gradually to a bluish-greenish tint near the edge of the shadow. The general appearance about this time, subject to slight differences in the tints, closely resembled Professor WEINER's very beautiful colored drawing of the eclipse of January 28, 1888, in the *Publications A. S. P.*, No. 23, but the eclipse portion was darker and not so deeply colored.

The principal work during the eclipse consisted in recording the times when the shadow outline reached and departed from different craters and other features. For this purpose a KELLNER eye-piece magnifying 58 times was used on the 6½-inch reflector. In making the observations the eye was allowed to run along the shadow outline, and the time when this outline appeared to cut centrally across the object observed, was the time noted. It would be difficult otherwise to obtain uniform results, since a conspicuous bright or dark object can be seen farther within the shadow outline than a less prominent one.

There has recently been some discussion as to the degree of accuracy with which observations of this kind can be made. The experience derived from the present eclipse shows, as might be expected, that a great deal depends upon the object observed. The most suitable appear to be small bright objects, such as Censorinus, and with these the times can be easily noted to a tenth of a minute. Large regular formations can also generally be well observed. In most cases, however, it is difficult to be sure of the time within a minute. It would be useful to carefully study a photograph of the full moon when contemplating observations of this kind so as to become well acquainted with the most suitable objects and to select those the positions of which have been well determined. The following is a list of the observations made during the late eclipse:—

	<i>Immersion.</i>		G. M. T.	
			h.	m.
Copernicus, center	9	32.1		
Plato I, border	9	32.1		
Plato II, border	9	33.6		
Manilius, center	9	49.1		
Menelaus, center	9	52.6		
Endymion, center	9	53.1		
Lemonnier A.	9	54.6		
Titatus, center	9	57.1		
Dionysius	9	58.6		
Cleomedes A.	10	4.8		
Censorinus	10	7.4		
Proclus	10	7.4		
Tycho, interior N. E. wall	10	8.1		
Tycho, center	10	9.8		
Taruntius, center	10	11.8		
Firmicus, center	10	17.1		
Goclenius, center	10	18.8		

<i>Emersions.</i>	
Tycho, outer edge of N. W. wall	11 27.1
Grimaldi, S. corner of dark interior	11 27.6
Grimaldi, middle of dark floor	11 29.3
Grimaldi, N. corner of dark interior	11 30.3
Gassendi, center	11 33.1
Pitatus, center	11 33.6

	G. M. T.
	h. m.
Pitatus, N. W. border	11 35.1
Munosius	11 37.6
Aristarchus	11 50.1
Bessarion E.	11 52.1
Copernicus, center	11 56.1
Copernicus, outer edge of N. W. wall	11 57.1
Euler	11 58.1
Pytheas	12 0.3
Fracastorius, N. W. border	12 2.4
Sinus Iridum, bisected	12 5.1
Timocharis	12 6.1
Cape Laplace	12 8.4
Dionysius	12 11.1
Plato, E. border	12 13.1
Plato, W. border	12 16.0
Menelaus	12 16.8
Posidonius, N. W. wall	12 28.0
Proclus	12 29.9
Endymion	12 34.3

BRIGHTON, June 22, 1892.

THE EFFECT OF PARALLAX ON THE PHENOMENA OF THE SATELLITES OF *MARS*.

BY W. J. HUSSEY.*

In treating of the phenomena of the satellites of *Mars* as seen from the surface of the planet, it has been customary for popular writers to disregard parallax and in consequence some of their statements are considerably in error. Some of these errors have appeared in well-known text-books and especially on this account it is desirable to call attention to this subject.

For a popular statement it is sufficient to use approximate data and calculations. Refraction due to the atmosphere of *Mars* may be neglected. Not enough is known of the constitution of the atmosphere of *Mars* to enable the amount of refraction due to it to be even roughly estimated. But it is doubtless small in comparison with the other quantities which we are considering

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